



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU

SAMPLE SITE PLAN - BACTERIOLOGICAL

Issued under authority of 1976 PA 399 and Administrative Rules, as amended.

Failure to develop a plan is a violation of the Act and may subject the water supply to enforcement penalties.

Administrative Rule R 325.10705 requires a water supply to monitor for total coliform bacteria according to a written sample site plan subject to department review and revision. This form is provided as a convenience to the water supply to develop the plan.

Water Supply Information

Supply Name	WSSN
Address	
City, State, Zip	County

Water Supply Monitoring Contacts

Name & Title	Telephone
Name & Title	Telephone

Sampling Information

Population Served	<i>minutes</i> Minimum flushing time required before sampling
<i>per month</i> Number of Routine Distribution Samples Required Per Month	<i>mg/L</i> Minimum chlorine residual required prior to sampling

Contacts

MDEQ Name & Title	Telephone
MDEQ Name & Title	Telephone
MDEQ Name & Title	Telephone
Local Official	Telephone
Local Official	Telephone
Health Department	Telephone
Laboratory - Used Primarily	Telephone
Laboratory - Alternate	Telephone

Public Notification

Means of Public Notification		
Newspaper Name & City	Telephone	Email
Radio / Television Name & Address or City	Telephone	Email

Add additional sheets if needed.

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* If only one routine sample is required per month, supply must collect four repeat samples in the event a sample result is positive: The site of the positive sample result, the upstream site, the downstream site, and one other site in the distribution system.

Site #	Well # or Plant Tap	Location or Address	# of samples/month
1			
2			
3			
4			
5			

Name and Title	Telephone
Signature	Date

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Instructions to Develop Sample Site Plan

1. Choose distribution system sample sites that are representative of water throughout the distribution system. If possible, choose sites where a smooth nonthreaded sampling tap is available or can be installed. A map of all sites listed in the Distribution System Sample Site chart can show that sites are representative of water throughout the distribution system.
2. Update the sample site plan when population changes or when existing sample sites are no longer representative of water throughout the distribution system.
3. Submit the Sample Site Plan to the Michigan Department of Environmental Quality (MDEQ) district office for review and possible revision. Visit www.michigan.gov/deq for contact information and locations.
4. Keep a copy easily accessible to the water operator and available for inspection by the MDEQ staff.

Procedure When Sample Result Is POSITIVE

1. If a distribution system sample result is positive for total coliform bacteria, *E.coli*, or fecal, then collect repeat samples within 24 hours of learning of the positive result from the following sites:
 - A. The site of the positive sample result; and
 - B. An upstream site within five service connections of the original positive site; and
 - C. A downstream site within five service connections of the original positive site; and
 - D. One other site from the distribution system. This fourth site is not required if the supply is required to collect more than one routine sample each month. It is recommended that the Distribution System Sample Site chart include a few nonroutine sites that are believed to be available for sampling if a routine site is positive for total coliform.
2. Notify the MDEQ district office within 24 hours if more than one distribution system sample result is positive for total coliform bacteria. Supplies that routinely collect more than 40 samples each month must notify the MDEQ when greater than five percent of the sample results are positive for total coliform.
3. Notify the MDEQ district office within 24 hours if any sample result is positive for *E.coli* or fecal coliform.
4. Collect a minimum of five samples during the next month. Supplies that routinely collect more than five samples are not required to increase frequency, unless directed by the MDEQ.

Sample Instructions

1. Remove the aerator, if present.
2. Flush sample tap for a minimum of two minutes.
3. Disinfect sample tap by either using chlorine bleach, or flaming the tap with a torch.
4. Flush sample tap again.
5. Reduce water stream to a modest, nonsplashing flow.
6. If the water is chemically disinfected you are subject to the Disinfection Byproduct Rule and must measure chlorine residual according to your Disinfection Byproduct Rule Monitoring Plan that you submitted to the MDEQ. Measure the chlorine residual to ensure the minimum residual is present before collecting the bacteriological sample.
7. Remove cap from bottle and hold cap with the inner surface facing downward. Do not set cap down. Dust-like particles in the bottle are a preservative; do not empty out or rinse out this preservative.
8. Fill the bottle. Avoid contact with sample tap or other surfaces. Do not overfill.
9. Immediately recap the sample bottle before turning off the water.
10. Complete the laboratory sample request form and attach it to the sample bottle.
11. Mail or deliver the sample to a laboratory certified by the state to perform bacteriological analyses. Samples must be analyzed within 30 hours of collection. Note that some laboratories are not available to accept samples on Fridays, weekends, holidays, etc.

Monthly Monitoring

1. Collect samples at regular time intervals throughout the month, except supplies that serve fewer than 4,901 persons may collect all samples on a single day if the samples are from different sites.
2. It is recommended that raw water samples be collected each month. The MDEQ may require monitoring of raw water or plant tap.
3. Failure to collect samples on time or failure to collect the required number of samples will result in a monitoring violation. Two or more monitoring violations within a 12-month period will result in a fine. Notify the MDEQ if monitoring was not performed as required.